

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith, which place the application into condition for allowance. The present amendment is being made to facilitate prosecution of the application.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1, 4-7, 120, 121 and 123 are currently pending. Claims 1, 7 and 120, which are independent, are hereby amended. Claims 2, 3, 8-119 and 122 are canceled, without prejudice or disclaimer of subject matter. No new matter has been introduced. Support for this amendment is provided throughout the Specification as originally filed, and specifically at page 25, line 25 – page 26, line 14. Changes to claims are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

Claim 7 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Applicants submit that claim 7 has been rewritten in independent form, and as such is allowable.

II. REJECTIONS UNDER 35 U.S.C. §103(a)

Claims 1, 4-6, 120, 121 and 123 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,069,956 to Kurihara in view of U.S. Patent No. 5,367,269 to Yanagidaira et al. and U.S. Patent No. 5,929,916 to Legall et al.

Claim 1 recites, *inter alia*:

“A data multiplexing device...comprising...

encoder controlling means for assigning higher or lower encoding bit rates to each of a plurality of encoders when encoding each of said plurality of data elements based on bit rate generation generated from each of said plurality of data elements so that said encoder controlling means is capable of managing all different generated bit rates without sacrificing quality of said output data program.”
(emphasis added)

As understood by Applicants, U.S. Patent No. 6,069,956 to Kurihara relates to a communication network in which data for transmission to a receiver terminal is multiplexed on a time-division basis and scrambled, a communication control apparatus and a method for allowing the data to be descrambled at the receiver without fail. A scrambler of the sender apparatus includes a time-division frame monitoring circuit for receiving an unscrambled data stream generated by multiplexing time-division frames for application data and relevant information for transmission.

As understood by Applicants, U.S. Patent No. 5,367,269 to Yanagidaira et al. relates to a system for producing an oscillating signal that includes a phase-locked loop including a control voltage producing circuit. The control voltage producing circuit is provided for producing a plurality of predetermined control voltages, with each of the predetermined control voltages corresponding to a desired frequency. A plurality of memories are provided in the phase-locked loop for storing the predetermined control voltages.

As understood by Applicants, U.S. Patent No. 5,929,916 to Legall et al. relates to a rate control algorithm for an MPEG-2 compliant encoder that has embodiments for constant bit rate and variable bit rate encoding. In particular, the invention relates to variable bit rate encoding.

Applicants submit that Kurihara, Yanagidaira and Legall – taken either alone or in combination - do not teach or suggest the above-identified features of claim 1. Specifically, Applicants submit that there is no teaching or suggestion of an encoder controlling means for assigning higher or lower encoding bit rates to each of a plurality of encoders when encoding each of the plurality of data elements based on bit rate generation generated from each of the plurality of data elements so that the encoder controlling means is capable of managing all different generated bit rates without sacrificing quality of the output data program, as recited in claim 1.

Applicants submit that the encoding controller of the present invention assigns a higher bit rate to an encoder for encoding certain programs that require more encoded bits and assigns a lower bit rate to an encoder for encoding certain programs that require less encoded bits (page 26, lines 2-12 of the present specification). Therefore, each encoder has a different bit rate so that each program is capable of being transmitted without quality loss and without buffer overflow issues. In contrast, Legall states that an encoder enters a “panic mode” in which quality is sacrificed to guarantee a legal bit stream (column 14, lines 35-42). However, according to the present invention, no sacrifice of quality is necessary because a buffer overflow situation does not occur, due to the assignment of different bit rates to each encoder. Furthermore, Legall does not assign higher or lower bit rates to encoders. In fact, Legall states that all the encoders are only set to a maximum value, thus creating the problem of generating too many bit or overflow of the buffer (column 14, line 37).

Therefore, Applicants submit that independent claim 1 is patentable.

For reasons similar to or somewhat similar to those described above with regard to independent claim 1, amended independent claim 120 is also believed to be patentable.

Therefore, Applicants submit that independent claims 1 and 120 are patentable.

III. DEPENDENT CLAIMS

The other claims are dependent from one of the independent claims, discussed above, and are therefore believed patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

CONCLUSION

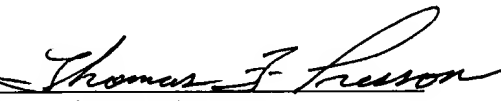
In the event the Examiner disagrees with any of statements appearing above with respect to the disclosure in the cited reference or references, it is respectfully requested that the Examiner specifically indicate those portions of the reference or references, providing the basis for a contrary view.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicants respectfully request early passage to issue of the present application.

Respectfully submitted,

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